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10/599,580	05/15/2007	Andrew Thoele	042933/386066	1999
10949 7590 03/23/2011 Nokia Corporation and Alston & Bird LLP c/o Alston & Bird LLP Bank of America Plaza, 101 South Tryon Street Suite 4000 Charlotte, NC 28280-4000				
EXAMINER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/599,580

Applicant(s)

THOELKE, ANDREW

Examiner

QING WU

Art Unit

2196

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 42-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-39, 42-44 and 46-50 is/are rejected.
- 7) ☒ Claim(s) 14 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 10/29/10
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-39 and 42-50 are pending in the application.

Information Disclosure Statement

2. Documents “Software Architecture- System of Pattern for Software Development” to Bushman et al., and “Lecture for Practicing Solaris” to Mauro cited in the information disclosure statement filed on 10/29/10 were not consider by the examiner because copy of an English translation is not available.

Allowable Subject Matter

3. Claims 14 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 18, 21-31, 35, 42-43 and 47-50 are rejected under 35 U.S.C. 102(e) as being anticipated by McGuire et al. (hereafter McGuire) (US Patent 7,107,497).

6. McGuire was cited in the previous office action.

7. As to claim 1, McGuire teaches the invention as claimed including a method comprising causing a kernel portion of an operating system to retrieve a property published within a first process and causing the kernel portion to notify the retrieved property to one or more further processes requesting to subscribe to the property [system event framework system operating within kernel memory retrieving an event from the kernel (a system process, a control program/software) and notify the event to subscribing user level applications, col. 6, lines 1-31; Figs. 2-3].

8. As to claim 2, McGuire teaches the invention as claimed including wherein the operating system is configured to supply a retrieved property in the form of a first part comprising a property name space and a second part comprising a property type [event with name/identifier and type, col. 6, lines 32-46; col. 8, lines 40-55].

9. As to claims 3-5, McGuire teaches the invention as claimed including wherein the name space comprises a category part and a key part, wherein the category part comprises a unique identifier (UID) and wherein the key part comprises a UID [event and/or event buffer having an event identifier that comprise a timestamp and sequence number, col. 8, lines 40-55].

10. As to claim 18, McGuire teaches the invention as claimed including wherein the kernel portion is configured to define an order in which the property is notified to the one or more further processes, and wherein causing the kernel portion to notify comprises causing the kernel portion to notify in accordance with the defined order [notification or delivery of event are extracted by unspecified order, col. 8, lines 25-32].

11. As to claims 21-23, McGuire teaches the invention as claimed including wherein causing the kernel portion to notify comprises using a kernel thread of known priority to notify the retrieved property to the one or more further processes, wherein the kernel thread of known priority comprises a supervisor type thread of the operating system kernel, comprising using a deferred function call queued on the supervisor type thread to notify the retrieved property to the one or more further processes [event delivery thread implemented in the kernel memory as a part of the system event framework system deliver events in a deferred manner by extracting event (buffer) from its queue to event to clients, col. 8, lines 25-32; Figs. 2-4].

12. As to claims 24-25, McGuire teaches the invention as claimed including wherein the property is removable from the operating system only by a process which created it, wherein removal of a property from the operating system is controlled by a SID [kernel as event publisher flushing/removing event after completion of delivery, such that the kernel (process or thread) are individually identifiable, abstract; col. 4, line 66-col. 5, lines 17; col. 8, lines 1-3; col. 9, lines 22-24; Fig. 8, 870].

13. As to claim 26, McGuire teaches the invention as claimed including wherein retrieving and/or subscribing to the property is controlled by SID [event subscribing by identifiable subscribers, col. 7, lines 7-14; col. 11, lines 10-20].

14. As to claim 27, McGuire teaches the invention as claimed including wherein the property is provided with a persistence attribute [Event attributes and/or related states are persistent such that it remains in an event queue until removed/flushed by the kernel, col. 8, line 50-col. 9, line 28].

15. As to claim 28, McGuire teaches the invention as claimed including wherein the kernel portion is configured to direct the retrieved property into persistent storage [storing retrieved event in system event loadable module, col. 7, lines 7-54].

16. As to claim 29, McGuire teaches the invention as claimed including wherein the kernel portion is configured to commit any outstanding change to the property to storage as part of operating system shutdown [buffered events or event buffers are not removed until event receipt acknowledgement such that system event loadable module in which the event buffers reside are part of the kernel memory which is not limited to RAM therefore is persistent, col. 7, lines 7-54; col. 6, lines 1-4].

17. As to claim 30, McGuire teaches the invention as claimed including wherein the property comprises a message queue facility comprising a message and message queue [event and queuing of event, col. 7, lines 7-54].

18. As to claim 31, McGuire teaches the invention as claimed including wherein the message queue is provided with a handle **for** enabling a message queue object to be opened by a reader and/or a writer of a message in the message queue [system event loadable module having event handle for linking event (message) between kernel and subscriber for delivery of event for consumption, col. 10, lines 17-64; Fig. 7].

19. As to claim 35, McGuire teaches the invention as claimed including wherein messages placed in the message queue are provided with a priority level for sequencing messages in the message queue [notification or delivery of event are extracted from queues by unspecified order/priority, col. 8, lines 25-32].

20. As to claims 42-43 and 47-49, McGuire teaches the method of notification as recited in claims 1-2, 21, 24 and 30, therefore McGuire teaches the apparatus for implementing the method. In addition, McGuire teaches CPU and memory [Fig. 2].

21. As to claim 50, McGuire teaches the method of notification as recited in claim 1, therefore McGuire teaches the non-transitory memory having computer-readable program

instructions for causing an apparatus for implementing the method.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 6-11, 16-17, 19-20, 32-34, 36-37 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over by McGuire as applied to claims 1-3, 30 and 35 above.

24. As to claim 6, McGuire does not specifically teach wherein the name space comprises a 64-bit integer comprised of two 32-bit parts. However, it is well known in the art of computer related system or programming to predefine variables of specific sizes and/or of a particular data types/structures, and storing the variables in predefined memory sizes such that expanding the predefined memory sizes to accommodate an oversized variables. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the event notification mechanism having event defined by specific parameters/attributes of McGuire to include the well known method of predefining parameters/attributes in specific sizes and data types/structures and storing the variables in predefined memory sizes such that expanding the predefined memory sizes to accommodate an oversized variables to achieved the predictable result of notifying the event from a publisher to a subscriber.

25. As to claims 7-11, 19-20 and 32-34, these claims are rejected for the same reason as claim 6 above.

26. As to claim 16, McGuire does not specifically teach wherein causing the kernel portion to notify comprises causing the kernel portion to notify to the one or more further processes only that the property has changed without specifying a new value for the retrieved property, thereby enabling notification of multiple changes in the value of the property by a single notification. However, granularity and specificity of a notification is a matter of design choice. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the event notifications of McGuire to notify different granularities of events such that insignificant notifications are eliminated.

27. As to claim 17, McGuire does not specifically teach wherein the kernel portion applies a limit on the number of further processes subscribing to the property. However, McGuire disclosed number of event channels created based on resource availability [col. 12, lines 23-28]. However, it is well known in the art of computer related technology that all computer system have a limited availability of resources and to have placed a limit on the number of resource requesters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the event notification mechanism having event subscribers of McGuire to include the well known method of placing a limit on resource consumer as considered by McGuire to limit the number of subscribers subscribing to a property.

28. As to claim 36, McGuire does not specifically teach wherein seven priority levels are provided for messages sequenced in the message queue. However, McGuire disclosed storing events in queues as they occur and logging the timestamp and sequence value [col. 7, lines 7-54; col. 8, line 50-col. 10, line 4] in unspecified order. In addition, it is well known in the art of computer task management to provide priority sorting or handling of tasks according to various mechanisms such that the mechanisms dictate the priorities of the tasks to be handle. Furthermore, a specified number of priority levels are a matter of design choice. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the events queuing of McGuire to include the well known method of prioritizing of the queue events with a specified number of priority levels that is applicable to the system.

29. As to claim 37, this claim is rejected for the same reason as claim 36 above.

30. As to claim 46, this claim is rejected for the same reason as claim 16 above.

31. Claims 12-13, 15 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over by McGuire as applied to claims 1-2 above, in view of Hondo et al. (hereafter Hondo) (US Patent 7,304,982).

32. Hondo was cited in the previous office action.

33. As to claim 12, McGuire does not specifically teach wherein the property type is provided with an access control policy defined when the property is created. However, Hondo teaches defining an event policy which provides access control of an event class/type [abstract; col. 6, lines 10-43]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the publishing and subscribing of event of specific type/class as being taught by McGuire with Hondo's teaching of applying event policy to event type/class because McGuire and Hondo are in the same field of endeavor of event notification and a person of ordinary skill in the art would be motivated to combined McGuire with Hondo because the teaching of Hondo can further improve the security and control of communicating confidentiality information between communicating entities as being considered by Hondo [col. 1, line 64-col. 2, line 7].

34. As to claim 13, McGuire as modified teaches the invention substantially as claimed including wherein the access control policy cannot be changed after the property has been created [Hondo, event policy can only be changed at time of configuring the event policy, such that the policy applied to a specific property/event cannot be changed once the property/event is en route, col. 7, line 14-col. 8, line 59].

35. As to claim 15, McGuire as modified teaches the invention substantially as claimed including wherein access control policy arranges the property in a reserved category which only allows a property to be defined in that category by a process having a write-system-data capability [Hondo, event policy placed the event class/type in the personally identifiable

information category that only an administrative user via a administrative management utility can define, col. 6, lines 10-43; col. 7, lines 10-61].

36. As to claim 44, this claim is rejected for the same reason as claim 12 above.

37. Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over by McGuire as applied to claims 1 and 30 above, in view of Cohen (US Patent 5,881,315).

38. Cohen was cited in the previous office action.

39. As to claims 38-39, McGuire does not specifically teach a wait for space facility is provided for enabling, when the message queue is full when a call is made by a party to place a message on that message queue, the message to be placed on the message queue as soon as space becomes available on the message queue without the need for a further call from that party; and when no messages are present on the message queue when a request to retrieve a message on the message queue is received from a party, a message appearing on the message queue to be notified to that party without the need for a further call from that party. However, Cohen teaches a feature that eliminates the need for a further call from a party that wants to place or retrieve message from a message queue by allowing the party to wait on the queue [col. 8, line 21-col. 9, line 29]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the event notification system as being taught by McGuire with Cohen's teaching of queuing events/messages because McGuire and Cohen are in the same field of endeavor of event notification and a person of ordinary skill in the art would be motivated to

combined McGuire with Cohen because repeated polling or resending of requests due to a failed attempt leads to inefficient management of computer resources.

Response to Arguments

40. Applicant's arguments filed 1/13/11 have been fully considered but are not persuasive.

41. In the remarks, Applicant argued in substance that:

a. McGuire fails to teach or suggest at least causing a kernel portion of an operating system to retrieve a property published within a first process because as disclosed in applicant's specification a process is distinct from the kernel which enables a second process to receive a property published by a first process through a kernel implementation.

42. Examiner respectfully traversed Applicant's remarks:

43. As to point (a), the examiner respectfully disagrees and submits that claim 1 **failed to specifically claimed** a first process as a running instance of a user mode program running with its own virtual address space or the fact that the first process is distinct from the kernel. Although applicant's specification disclosed such environment/exemplary embodiment, the applicant is reminded that claimed subject matter, not the specification, is the measure of invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art, in this case the outstanding 35 USC § 101 rejection. If Applicant believes the limitation is important feature of the invention, it should be incorporated into the claims for

further consideration. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11,15 (CCPA 1978).

44. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **QING WU** whose telephone number is (571)272-3776. The examiner can normally be reached on 9:30am-6:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emerson Puente can be reached on (571) 272-3652. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/QING-YUAN WU/
Primary Examiner, Art Unit 2194